

## Freeform Search

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	US Patents Full-Text Database
	US OCR Full-Text Database
	EPO Abstracts Database
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	Derwent World Patents Index
	IBM Technical Disclosure Bulletins

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### Search History

DATE: Thursday, November 03, 2005 [Printable Copy](#) [Create Case](#)

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side by side			
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
<u>L29</u>	L28 not l25	0	<u>L29</u>
<u>L28</u>	L24 and (("black\$ box" or "black-box" or "black box") same (decrypt\$ or encrypt\$ or crypto?\$)) and @ad<=19990327	3	<u>L28</u>
<u>L27</u>	L26 not l25	1	<u>L27</u>
<u>L26</u>	L24 and (black\$ same (decrypt\$ or encrypt\$ or crypto?\$)) and @ad<=19990327	4	<u>L26</u>
<u>L25</u>	L24 and (black\$ with (decrypt\$ or encrypt\$ or crypto?\$)) and @ad<=19990327	3	<u>L25</u>
<u>L24</u>	L6 or l12	273	<u>L24</u>
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
<u>L23</u>	L18 and (decrypt\$ same licens\$)	1	<u>L23</u>
<u>L22</u>	L18 and decrypt\$	1	<u>L22</u>
<u>L21</u>	L18 and black\$	1	<u>L21</u>
<u>L20</u>	L18 and (black\$ same encrypt\$)	0	<u>L20</u>
<u>L19</u>	L18 and (black\$ same decrypt\$)	0	<u>L19</u>
<u>L18</u>	6343280.pn.	1	<u>L18</u>

*DB=EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR*

<u>L17</u>	L14 and ibm\$	0	<u>L17</u>
<u>L16</u>	L14 and baratti\$	0	<u>L16</u>
<u>L15</u>	L14 and baratti	0	<u>L15</u>
<u>L14</u>	9903798\$	17	<u>L14</u>

*DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR*

<u>L13</u>	L12 and black\$	3	<u>L13</u>
<u>L12</u>	6226618.pn. or 6343280.pn. or 6574612.pn. or 6073124.pn. or 5715403.pn. or 6006332.pn. or 6112181.pn.	7	<u>L12</u>
<u>L11</u>	L10 and black\$	2	<u>L11</u>
<u>L10</u>	6226618.pn. or 6343280.pn. or 6574612.pn. or 6073124.pn. or 5715403.pn.	5	<u>L10</u>
<u>L9</u>	6226618.pn. or 6343280.pn. or 6574612.pn. or 6073124.pn. or 6715403.pn.	5	<u>L9</u>

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR*

<u>L8</u>	L6 and drm\$ and (license adj serv\$)	3	<u>L8</u>
<u>L7</u>	L6 and drm and (licenser adj serv?)	0	<u>L7</u>
<u>L6</u>	L3 or L5	268	<u>L6</u>

<u>L5</u>	(5864620   4905163   5191573   5606617   5915025   5787413   5751805   5541991   6009543   5999629   5355302   4218582   6343280   4782529   5604804   5982892   5588060   5745574   5754646   4879747   4926479   5592664   5319705   5923882   5657473   4825306   5758069   5224163   4944006   5005200   5706347   4463387   5224166   5636139   5130792   5889860   5757914   5892900   5347580   4924378   5537475   5222133   4405829   5991399   5557541   5220604   5530752   5652793   5261002   4868687   4757534   5497421   5260788   5675734   5671412   4424414   5710887   5646992   5745879   4888798   4995082   5276901   5412717   5371794   5646998   4200770   4272810   5765152   5905860   5315658   5509071   5519778   4803725   4868877   4731840   5917912   5606609   5214702   5790664   5657388   4528643   5159634   4465901   4878246   4809327   5673316   6018712   6047242   5420927   5666420   5581479   5369705   5796841)! [PN]	190	<u>L5</u>
<u>L4</u>	('WO 200008909A'   'US 6343280B'   '6574612'   '6343280'   '6226618'   '6574609'   'GB 2346989A') [PN]	7	<u>L4</u>
<u>L3</u>	('WO 200008909A'   'US 6343280B'   '6574612'   '6343280'   '6226618'   '6574609'   'GB 2346989A') [URPN]	78	<u>L3</u>
<u>L2</u>	6226618.pn. or 6343280.pn. or 6574612.pn. or 6574609.pn.	7	<u>L2</u>
<u>L1</u>	6343290.pn.	1	<u>L1</u>

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L27: Entry 1 of 1

File: USPT

Nov 9, 1993

US-PAT-NO: 5261002

DOCUMENT-IDENTIFIER: US 5261002 A

TITLE: Method of issuance and revocation of certificates of authenticity used in public key networks and other systems

DATE-ISSUED: November 9, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Perlman; Radia J.	Acton	MA		
Kaufman; Charles W.	Northborough	MA		

US-CL-CURRENT: 380/30; 713/156, 713/158

ABSTRACT:

A technique for issuing and revoking user certificates of authenticity in a public key cryptography system, wherein certificates do not need expiration dates, and the inconvenience and overhead associated with routine certificate renewals are minimized or avoided entirely. A Certification Authority issues certificates as required, and issues a blacklist having a start date, an expiration date, and an entry for every invalid certificate issued after the start date. Users assume that every certificate issued prior to the blacklist start date is invalid, and that invalid certificates issued after the start date will be included in the current blacklist. A new blacklist is issued prior to expiration of the current one, and the blacklist start date is changed only when the blacklist becomes unmanageably long.

18 Claims, 2 Drawing figures

Exemplary Claim Number: 7

Number of Drawing Sheets: 2

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L12: Entry 2 of 3

File: USPT

Jan 29, 2002

US-PAT-NO: 6343280

DOCUMENT-IDENTIFIER: US 6343280 B1

TITLE: Distributed execution software license server

DATE-ISSUED: January 29, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Clark; Jonathan	Austin	TX	78749	

APPL-NO: 09/212373 [PALM]

DATE FILED: December 15, 1998

INT-CL: [07] H04 L 9/00

US-CL-ISSUED: 705/55; 705/51

US-CL-CURRENT: 705/55; 705/51

FIELD-OF-SEARCH: 705/1, 705/50-59, 380/201, 380/202

PRIOR-ART-DISCLOSED:

## U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>4465901</u>	August 1984	Best	713/190
<input type="checkbox"/>	<u>4888798</u>	December 1989	Earnest	705/54
<input type="checkbox"/>	<u>4924378</u>	May 1990	Hershey et al.	364/200
<input type="checkbox"/>	<u>5222133</u>	June 1993	Chou et al.	705/55
<input type="checkbox"/>	<u>5530752</u>	June 1996	Rubin	705/59
<input type="checkbox"/>	<u>5541991</u>	July 1996	Benson et al.	713/202
<input type="checkbox"/>	<u>5606609</u>	February 1997	Houser et al.	380/4
<input type="checkbox"/>	<u>5652793</u>	July 1997	Priem et al.	705/56
<input type="checkbox"/>	<u>5657388</u>	August 1997	Weiss	380/23
<input type="checkbox"/>	<u>5657473</u>	August 1997	Killeen et al.	711/163
<input type="checkbox"/>	<u>5745879</u>	April 1998	Wyman	705/1
<input type="checkbox"/>	<u>5751805</u>	May 1998	Otsuki et al.	705/54

<input type="checkbox"/>	<u>5754646</u>	May 1998	Williams et al.	705/55
<input type="checkbox"/>	<u>5757914</u>	May 1998	McMainis	380/23
<input type="checkbox"/>	<u>5758069</u>	May 1998	Olsen	395/187.01
<input type="checkbox"/>	<u>5790664</u>	August 1998	Coley et al.	380/4
<input type="checkbox"/>	<u>5905860</u>	May 1999	Olsen et al.	395/187.01
<input type="checkbox"/>	<u>5923882</u>	July 1999	Ho et al.	395/709
<input type="checkbox"/>	<u>6009543</u>	December 1999	Shavit	714/200
<input type="checkbox"/>	<u>6018712</u>	January 2000	Pactong	705/1

## FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
WO 9013865	November 1990	WO	

## OTHER PUBLICATIONS

Definition of "executable file" at <http://www.webopedia.com>, Jul. 3, 2001.

ART-UNIT: 2162

PRIMARY-EXAMINER: Stamber; Eric W.

ASSISTANT-EXAMINER: Champagne; Donald L.

ATTY-AGENT-FIRM: Lee; Larry Mason .

## ABSTRACT:

A method of protecting an executable image from unlicensed use is provided by remote execution of sequences of microprocessor instructions. Means of selecting sequences of instructions that execute infrequently and provide a high level of security against reverse engineering is provided. Selection means includes run-time profiling of an executable running under normal conditions. The selected sequences of instructions are replaced with instructions that interrupt the normal flow of execution and transfer control to a license server. A client computer executes the modified executable until the replaced sequences interrupt the normal flow of execution and transfer control to a license server. The license server executes the instructions which were replaced in the modified executable upon proper authorization by emulating the client microprocessor.

16 Claims, 18 Drawing figures

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L12: Entry 2 of 3

File: USPT

Jan 29, 2002

DOCUMENT-IDENTIFIER: US 6343280 B1

TITLE: Distributed execution software license server

Detailed Description Text (23):

The removal of a single instruction from a computer program typically does not result in a sufficiently complex relationship between inputs and outputs of the execution of the single instruction to permit protection because most computer systems have a small set of instructions that have a limited effect. By watching the inputs and outputs of the operation of a single missing instruction the instruction could be easily guessed, derived, or reverse engineered. For this reason, the instant invention uses a sequence of instructions which when grouped together have a combined effect that is much more complex and difficult to determine. The length of an instruction sequence 298 to be removed from the Original Software 9 and placed on the License Server 4 for remote execution is determined by the process shown in FIG. 7. An instruction sequence 298 can be thought of as a black box having only inputs and outputs. The inputs include any memory or CPU registers that are to be accessed by the execution of the instruction sequence 298. The outputs are any memory or CPU registers that are modified by the execution of the instruction sequence 298. Because the instant invention operates on instruction sequences 298 rather than on individual instructions, information for determining the execution differences (as discussed above) can be stored for an entire instruction sequence, thereby saving memory space and time. By running the program twice and recording the inputs and outputs of each of the instruction sequences 298, differences will result if the Software User 2 operates the software differently on the two runs. These differences are easily identified by matching the inputs of one run with those of another run. A difference is identified when no matches occur or the outputs differ for matched inputs.

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L25: Entry 1 of 3

File: USPT

Jun 29, 1999

DOCUMENT-IDENTIFIER: US 5917912 A

**\*\* See image for Certificate of Correction \*\***

TITLE: System and methods for secure transaction management and electronic rights protection

Application Filing Date (1):19970108Detailed Description Text (1742):

Delivery of audit reports through a path of handling may be in part insured by an inverse (return of information) audit method. Many VDE methods have at least two pieces: a portion that manages the process of producing audit information at a user's VDE node; and a portion that subsequently acts on audit data. In an example of the handling of audit information bound for a plurality of auditors, a single container object is received at a clearinghouse (or other auditor). This container may contain (a) certain encrypted audit information that is for the use of the clearinghouse itself, and (b) certain other encrypted audit information bound for other one or more auditor parties. The two sets of information may have the same, overlapping and in part different, or entirely different, information content. Alternatively, the clearinghouse VDE node may be able to work with some or all of the provided audit information. The audit information may be, in part, or whole, in some summary and/or analyzed form further processed at the clearinghouse and/or may be combined with other information to form a, at least in part, derived set of information and inserted into one or more at least in part secure VDE objects to be communicated to said one or more (further) auditor parties. When an audit information container is securely processed at said clearinghouse VDE node by said inverse (return) audit method, the clearinghouse VDE node can create one or more VDE administrative objects for securely carrying audit information to other auditors while separately processing the secure audit information that is specified for use by said clearinghouse. Secure audit processes and credit information distribution between VDE participants normally takes place within the secure VDE "black box," that is processes are securely processed within secure VDE PPE 650 and audit information is securely communicated between the VDE secure subsystems of vDE participants employing VDE secure communication techniques (e.g., public key encryption, and authentication).

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L25: Entry 1 of 3

File: USPT

Jun 29, 1999

US-PAT-NO: 5917912

DOCUMENT-IDENTIFIER: US 5917912 A

**\*\* See image for Certificate of Correction \*\***

TITLE: System and methods for secure transaction management and electronic rights protection

DATE-ISSUED: June 29, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ginter; Karl L.	Beltsville	MD		
Shear; Victor H.	Bethesda	MD		
Spahn; Francis J.	El Cerrito	CA		
Van Wie; David M.	Sunnyvale	CA		

US-CL-CURRENT: 713/187; 705/40, 713/164, 719/312

## ABSTRACT:

The present invention provides systems and methods for secure transaction management and electronic rights protection. Electronic appliances such as computers equipped in accordance with the present invention help to ensure that information is accessed and used only in authorized ways, and maintain the integrity, availability, and/or confidentiality of the information. Such electronic appliances provide a distributed virtual distribution environment (VDE) that may enforce a secure chain of handling and control, for example, to control and/or meter or otherwise monitor use of electronically stored or disseminated information. Such a virtual distribution environment may be used to protect rights of various participants in electronic commerce and other electronic or electronic-facilitated transactions. Distributed and other operating systems, environments and architectures, such as, for example, those using tamper-resistant hardware-based processors, may establish security at each node. These techniques may be used to support an all-electronic information distribution, for example, utilizing the "electronic highway."

58 Claims, 153 Drawing figures

Exemplary Claim Number: 58

Number of Drawing Sheets: 146

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L25: Entry 2 of 3

File: USPT

Apr 6, 1999

DOCUMENT-IDENTIFIER: US 5892900 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Systems and methods for secure transaction management and electronic rights protection

Application Filing Date (1):19960830Detailed Description Text (1975):

Delivery of audit reports through a path of handling may be in part insured by an inverse (return of information) audit method. Many VDE methods have at least two pieces: a portion that manages the process of producing audit information at a user's VDE node; and a portion that subsequently acts on audit data. In an example of the handling of audit information bound for a plurality of auditors, a single container object is received at a clearinghouse (or other auditor). This container may contain (a) certain encrypted audit information that is for the use of the clearinghouse itself, and (b) certain other encrypted audit information bound for other one or more auditor parties. The two sets of information may have the same, overlapping and in part different, or entirely different, information content. Alternatively, the clearinghouse VDE node may be able to work with some or all of the provided audit information. The audit information may be, in part, or whole, in some summary and/or analyzed form further processed at the clearinghouse and/or may be combined with other information to form a, at least in part, derived set of information and inserted into one or more at least in part secure VDE objects to be communicated to said one or more (further) auditor parties. When an audit information container is securely processed at said clearinghouse VDE node by said inverse (return) audit method, the clearinghouse VDE node can create one or more VDE administrative objects for securely carrying audit information to other auditors while separately processing the secure audit information that is specified for use by said clearinghouse. Secure audit processes and credit information distribution between VDE participants normally takes place within the secure VDE "black box," that is processes are securely processed within secure VDE PPE650 and audit information is securely communicated between the VDE secure subsystems of VDE participants employing VDE secure communication techniques (e.g., public key encryption, and authentication).

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L25: Entry 2 of 3

File: USPT

Apr 6, 1999

US-PAT-NO: 5892900

DOCUMENT-IDENTIFIER: US 5892900 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Systems and methods for secure transaction management and electronic rights protection

DATE-ISSUED: April 6, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ginter; Karl L.	Beltsville	MD		
Shear; Victor H.	Bethesda	MD		
Sibert; W. Olin	Lexington	MA		
Spahn; Francis J.	El Cerrito	CA		
Van Wie; David M.	Sunnyvale	CA		

US-CL-CURRENT: 726/26

## ABSTRACT:

The present invention provides systems and methods for electronic commerce including secure transaction management and electronic rights protection. Electronic appliances such as computers employed in accordance with the present invention help to ensure that information is accessed and used only in authorized ways, and maintain the integrity, availability, and/or confidentiality of the information. Secure subsystems used with such electronic appliances provide a distributed virtual distribution environment (VDE) that may enforce a secure chain of handling and control, for example, to control and/or meter or otherwise monitor use of electronically stored or disseminated information. Such a virtual distribution environment may be used to protect rights of various participants in electronic commerce and other electronic or electronic-facilitated transactions. Secure distributed and other operating system environments and architectures, employing, for example, secure semiconductor processing arrangements that may establish secure, protected environments at each node. These techniques may be used to support an end-to-end electronic information distribution capability that may be used, for example, utilizing the "electronic highway."

220 Claims, 177 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 163

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L25: Entry 3 of 3

File: USPT

May 15, 1990

DOCUMENT-IDENTIFIER: US 4926479 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Multiprover interactive verification system

Application Filing Date (1):  
19880429

Detailed Description Text (393):

Conceptually, we would like to have the use of a black box into which the verifier inputs an encrypted history of the communication, the prover inputs its answer to the question and the output which is given to the verifier is the encrypted answer of the prover and the encrypted next question of the verifier. See FIG. 2.

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L25: Entry 3 of 3

File: USPT

May 15, 1990

US-PAT-NO: 4926479

DOCUMENT-IDENTIFIER: US 4926479 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Multiprover interactive verification system

DATE-ISSUED: May 15, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Goldwasser; Shafi	Cambridge	MA		
Kilian; Joseph	Cambridge	MA		
Wigderson; Avi	Jerusalem			IL
Ben-Or; Michael	Jerusalem			IL

US-CL-CURRENT: 713/180; 340/5.74, 705/67.

## ABSTRACT:

In a multiparty verification system, a prover and a verifier are coupled to process respective outputs to provide a system output such as an identification verification. The prover is formed of plural units which share confidential information used to encrypt information carried by the prover. Communication between the prover units is prevented. The first prover unit encrypts the information based on additional information received from the verifier and transfers the encrypted information to the verifier. Subsequently, the verifier obtains from the second prover unit the shared confidential information required to decrypt a subset of the transmitted encrypted information.

20 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

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L27: Entry 1 of 1

File: USPT

Nov 9, 1993

DOCUMENT-IDENTIFIER: US 5261002 A

TITLE: Method of issuance and revocation of certificates of authenticity used in public key networks and other systems

Abstract Text (1):

A technique for issuing and revoking user certificates of authenticity in a public key cryptography system, wherein certificates do not need expiration dates, and the inconvenience and overhead associated with routine certificate renewals are minimized or avoided entirely. A Certification Authority issues certificates as required, and issues a blacklist having a start date, an expiration date, and an entry for every invalid certificate issued after the start date. Users assume that every certificate issued prior to the blacklist start date is invalid, and that invalid certificates issued after the start date will be included in the current blacklist. A new blacklist is issued prior to expiration of the current one, and the blacklist start date is changed only when the blacklist becomes unmanageably long.

Application Filing Date (1):19920313Brief Summary Text (17):

The present invention resides in a method for authenticating users of an information system and, more specifically, users of a public key cryptography system. In the method of the invention, certificates are not required to have an expiration date, so much of the inconvenience of periodic certificate renewals is avoided. A blacklist has a start date and an expiration date, and any certificates issued prior to the start date are automatically considered invalid.

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